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## A study of the Information Services on Turkish High Schools

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### Abstract

The World Wide Web went public in 1989. Since then, every organization has come to utilize web-based technologies for their various purposes. Educational institutions have implemented web technology in their contemporary curriculums. The aim of this study is to investigate five private schools in Ankara, Turkey and to unravel the impact of information technology (internet usage, information services) in their programs. The five high schools were: Ari College, TED Ankara College, Tevfik Fikret High School, METU (Middle East Technical University) College and Bilkent High School. We conducted a qualitative research on the selected high schools by observing and collecting data. Research was done from March-May 2009. We found out that internet services in high schools are not utilized to their full capacity.

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*Keywords: information services; web technologies; educational institutions*

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### 1. Introduction

Since the invention of personal computers, followed by the internet, information technology has become a focal point in our daily life. Our daily routines have been altered by many aspects of information technology such as e-mail, information seeking, on line shopping, banking applications, to name only a few. With technological advancement, such as hardware, software technologies and mobile applications, everyone has access to information at any time and in any location.

In schools, the applications of information technology (information services) are considered an internet service. In March 1994, the Hillside Elementary school in Cottage Grove and two other schools in Minnesota, USA, were the first schools to have web pages (Clyde, 2004). The aim of this paper is to chart the usage of information services in the selected schools mentioned above. We selected five private schools in Ankara, Turkey, investigating the impact of internet technology on their curriculum. A content analysis was done on their web pages. Moreover, we explored the internet services in their libraries such as books, collections, computers, and, last but not least, the environmental aspect of the libraries as well (elementary schools and junior, senior level in the schools). The language of instructions in all of the schools mentioned is English or French (e.g., from sixth grade they comprehensively use English, French or German in their curriculums). We performed a qualitative analysis (overall) of the designated schools. Nevertheless, in our study, we strove to answer the following questions: (1) do the selected schools adhere to the IFLA (International Federation of Libraries' Associations) manifesto on

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disseminating internet technology in their premises? (2) To what extent do libraries play an important role in implementing the information services in their schools? (3) What will be the future of information services in the years to come?

## 2. Literature Review

What is known as the internet was started by the U.S. Defense Department in early 1970s. Later on, the NSF (National Science Foundation) funded the project for universities and other research centers and eventually the internet became an indispensable part of information technology. In time, the internet offered new incentives such as e-mail, where the pioneers were Gmail (i.e. Google e-mail) and Hotmail (i.e. yahoo e-mail) to name two. Nowadays, web pages have become an integral part of many organizations such as governments, companies, newspapers, schools and so on (Hou, 2003). Clyde (2004) conducted a content analysis on schools' libraries, reporting the "updates" or any changes to their content. She continued by tracking their content or URLs using the Google search engine. Bull and Hammond (2004) studied the impact of e-learning in schools. They refer to e-learning as an *Age of Participation* in which, with recent advances in technology everyone should benefit. Turkey as a country with young population (approx. 15,000,000 students) has implemented information technologies in schools curriculums. In their turn, libraries play an important on disseminating information services in their respective schools. For example, according to Önal (2005) The Turkish Librarians' Association (TLA) is in the process of restructuring The School Libraries Working Group (SLWG), later renamed the School Librarians Istanbul Group (SLIG), and this has been developing within the TLA since 2000. It has come up with preliminary suggestions for a structure that would make it a more effective and efficient professional organization of school librarians. The MEB (Milli Egitim Bakanligi, i.e. National Ministry of Education) has extensively incorporated information technology usage in its agenda. The MEB provides information by ensuring digital access to everyone in the society. For example, the MEB offers much information through the usage of state of art technologies such as: internet access to all schools (e.g. primary, secondary and high schools) in the country; ADSL access to 5000 schools so far; an education portal (i.e. <http://www.egitim.gov.tr>) which provides the immense technological tools at its disposal for users such as students, parents and managers (see figure 1). The library's approach to information access is essential in the provision of technology to support the classroom. The advantages of using information technology are as follows: (1) students will have access to on line journals; (2) students can participate in forums discussing class activities; (3) students are able to use print and photocopy services; (4) the library provides online databases. Moreover, IFLA sets guidelines for internet use policies. The internet as an example of media resource in school's library, ought to be available in the following way:

- *supporting and enhancing educational goals as outlined in the school's mission and curriculum;*
- *developing and sustaining in children the habit and enjoyment of reading and learning, and the use of libraries throughout their lives;*
- *offering opportunities for experiences in creating and using information for knowledge, understanding, imagination and enjoyment;*
- *supporting all students in learning and practising skills for evaluating and using information, regardless of form, format or medium, including sensitivity to the modes of communication within the community;*
- *providing access to local, regional, national and global resources and opportunities that expose learners to diverse ideas, experiences and opinions;*
- *organizing activities that encourage cultural and social awareness and sensitivity;*
- *working with students, teachers, administrators and parents to achieve the mission of the school;*
- *proclaiming the concept that intellectual freedom and access to information are essential to effective and responsible citizenship and participation in a democracy;*
- *Promoting reading and the resources and services of the school library to the whole school community and beyond<sup>2</sup>.*

<sup>2</sup> <http://archive.ifla.org/VII/s11/pubs/manifest.htm>

### 3. Research

We conducted a content analysis of five private schools in investigating the role of the library in providing information technologies and resources to the school at large. The research consists of two parts; first, we explored the schools' web sites, and second, we interviewed the librarians regarding information resources.

### 4. Sample Characteristics

For the purpose of this study, we selected five private schools as a pilot. The language of instruction at secondary level in all of them is English or French. As a summary, TED College was established after the establishment of the Turkish Republic, in Ankara, capital of Turkey. TED stands for Turk Egitim Dernigi (Turkish Education Association), was founded in 1928. TED has grown to be one of the major private K12 school in the country. Tevfik Fikret High school named after the Turkish poet who lived 1867-1915. The language of instruction is French. Ari College was established in 1984 in Ankara. It stated out as a preparatory school for universities. Currently, it has kindergarten, secondary and high schools. METU College provided its first graduates in 1996-1997. The main campus is located in the Middle East Technical University from which it takes its name. It has branches in other cities as well such as Denizli, Mersin and Kayseri.. Finally, BUPS/BIS(Bilkent International School) was established in March 1993. It started with 45 students from grade 6 to 8. It has grown and today has 560 students. English is the medium of instruction in the school from kindergarten to grade 12. The aim of this study is to explore the websites/pages of these schools, especially the libraries' websites. We ascertained how much these websites adhere to the IFLA's manifesto.

### 5. Methods

The comparative method is used by researchers in the context of librarianship for revealing strengths and weaknesses of the of library services. For example, Önal (2009) conducted a comparative study on three countries: Germany, Iran and Turkey, investigating the impact of the IFLA/UNESCO School Library Manifesto in school library services. However, in this research we mainly emphasize information services (technologies) utilization in five private high schools (including their primary and secondary schools). In other words, we like to see how developed information technologies are in each school, besides their daily library operation. Determining the research design was based on a qualitative method, and a content analysis on the web pages of each school was conducted. We summarize our research methods by setting baselines dealing with schools' websites' features as follows:

- General information about the school and library
- Statement of purpose of the library
- Library rules
- Site map
- Link to journals: Turkish/English sites
- Online database
- Link to internet resources for teachers
- News materials list
- Link to online libraries
- Link to internet resources

In addition, we chart the libraries' collections, library usage, and information resources based on our interviews and observation as well (see table3)<sup>3</sup>.

#### 5.1. Comparisons

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<sup>3</sup> Önal, Inci., (2009), "IFLA/UNESCO School Library Manifesto for Creating One World", *Libri*, 2009, Vol 59, PP. 45-54

- **General Characteristics**

The first question is addressed by analyzing the web pages of the schools. Table 1 shows an overview of the web pages/sites of the school as of 2009. Table 2 shows the schools' populations. Table 3 shows the overall comparison of the five private schools.

Table 1. Contents/Features of schools

	TED Ankara College	Tevfik Fikret	BUPS Bilkent	METU College	Ari College
General Inforamtion	✓	✓	✓	✓	✓
Statement of purpose	✓			✓	✓
Library rules	✓		✓	✓	
Online database	✓	✓	✓	✓	✓
Link to internet resources for teachers	✓				
Link to journals : Turkish/English sites	✓	✓	✓	✓	✓
Link to internet resources	✓	✓	✓	✓	✓
Link to online libraries	✓				

Table 2. depicts the number of students, teachers and personnel in each high school

	TED Ankara College	Tevfik Fikrret	BUPS Bilkent	ODTU college	Ari college
Number of students Elementary/ Secondary/ High School	14222	950	650	1200	1250
Number of Teachers	2922	95	45	200	110
Personnel	976	65	85	85	25
Total	18120	1130	780	1485	1385

## 6. Schools' Specific Characteristics

The primary findings can be summarized for each high school as follows:

### 6.1. TED Ankara College

TED Ankara College had the largest library collection (i.e., books, journals, CD/DVD/VCD, cassettes, videos...) with the total of 46177. They have subscriptions to 112 journals( Turkish 26, foreign 86). Also, they have online subscription to databases such as EBSCOHost and Gale Student Resource Center. Moreover, students utilize the Moodle (an e-learning software) accessing the class notes or taking quiz or test materials from internet. In addition, TED uses OpenBiblio software for library automation. OpenBiblio is an easy-to-use, automated library system written in PHP containing OPAC (Online Public Access Catalog) circulation, cataloging, and staff administration functionalities. The system is accessible 24/7. Microsoft Office is used extensively in the school.

### 6.2. Ari College

Ari College's collections consist of books and atlases and some local journals. There are two libraries: one for the primary school and one for the secondary and high schools. There is a designated room with a projector that is available to classes by appointment. Mainly, the library is used for studies and sometimes for extra activities. There are two computers in the library; however, students prefer using the computers in the computer room run by information services. Nevertheless, the library uses an in-house DOS based software system for circulation and cataloging. Students do not have e-mail account in school, although teachers do. There is a wireless network

installed in the school. They don't yet have access to OPAC for now, but they are planning this for the near future. For now, they do not use any e-learning software but they are planning to.

### 6.3. METU College

METU College uses Milas 4.5 (e.g. proprietary software) automation system for cataloging and searches by librarians and students. Students can only search the local database. Computer literacy is offered in school to elementary students for one hour per week. There are two libraries available in school as follows: elementary and high school. The elementary school is responsible for grades 1-5. Information resources consist of three computers for students. Students use the library for every week for doing their homework. Besides this, the collection consists of books, CDs, DVDs and a photocopy machine. The library does not have a separate website, but they are planning to implement one. Books are shelved on the basis of the Dewey open system. There are computers with internet although use is limited due to abuse of the library's rules.

### 6.4. Bilkent International School

Multimedia technologies play an important role in the library. There are CDs/DVDs/VCDs available for students for use in the library and outside the library. The library lends multimedia material to parents of the students. Moreover, there is an internet connection in the library for three computers. Nevertheless, unnecessary sites are filtered out due to experience of misconduct by the students. Librarians do not give computer literacy education to students. However, the younger children receive computer literacy education from teachers. There is wireless access and a photocopy machine. According to the head of the library, they use library automation software called "swets" that located offshore in United State of America. There is no unique website available for the school's library. However, there is a link on the main web page of the school that takes the user to the schools' library. The library is organized based on the system of the Library of Congress in Washington D.C.

### 6.5. Tevfik Fikret High school

The library consists of two floors: first floor (Turkish material), second floor (French & English). They also use Milas (library automation system) for circulation and cataloging. The information technology office is in charge of the technology operation in the school. Librarians provide orientation for the freshmen students. There are several projectors available based on appointment. Moreover, there are several online journals (local & foreign) such as: Bilim Teknik, Cogito, Adım Dergisi, Atlas, Bütün Dünya, Capital Chip, Focus, Kitaplık, Sanat, Dünyamız, Türk, Psikoloji, Bülteni, Varlık, Virgül, Human Resources, Popüler Psikiyatri, PC Life, PC Magazine and J'aime Lire. The school's website/pages are operated by an Internet Service Provider (ISP) outside of the school. Computer literacy education is given to elementary students by their school teachers (see table 3).

Table 3. Comparative table: information services, library services and schools' standards of high schools (primary, secondary and high schools)

	TED Ankara College	Tevfik Fikret college	BUPS Bilkent college	ODTU college	Ari college
<b>Web site address</b>	<a href="http://www.tedankara.k12.tr/">http://www.tedankara.k12.tr/</a>	<a href="http://www.tevfikfikret-ank.k12.tr/">http://www.tevfikfikret-ank.k12.tr/</a>	<a href="http://www.bups.bilkent.edu.tr/">http://www.bups.bilkent.edu.tr/</a>	<a href="http://www.odtugvo.k12.tr/">http://www.odtugvo.k12.tr/</a>	<a href="http://www.ariokullari.k12.tr/">http://www.ariokullari.k12.tr/</a>
<b>E-learning technology</b>	Moodle open system	NA	NA	NA	NA
<b>Cataloging software</b>	OpenBiblio/open source software	Milas/propriety software	Swets/ propriety software	Milas/ propriety software	DOS base In House Software
<b>Information networks</b>	<a href="http://www.egitim.gov.tr/">http://www.egitim.gov.tr/</a>	<a href="http://www.egitim.gov.tr/">http://www.egitim.gov.tr/</a>	<a href="http://www.egitim.gov.tr/">http://www.egitim.gov.tr/</a>	<a href="http://www.egitim.gov.tr/">http://www.egitim.gov.tr/</a>	<a href="http://www.egitim.gov.tr/">http://www.egitim.gov.tr/</a>
<b>Type of media</b>	Audio/Visual materials, Print Formats Electronic resources	Audio/Visual materials, Print Formats	Audio/Visual materials, Print Formats	Audio/Visual materials, Print Formats	Audio/Visual materials, Print Formats
<b>IB Diploma Program</b>	Offers	Does not offer	Offers	Does not offer	Does not offer
<b>Library's webpage</b>	<a href="http://library.tedankara.k12.tr/">http://library.tedankara.k12.tr/</a>	NA	NA	NA	NA
<b>Books' search online web address</b>	<a href="http://bliss.tedankara.k12.tr/search.php">http://bliss.tedankara.k12.tr/search.php</a>	<a href="http://195.155.142.4/web/catalog/search.php">http://195.155.142.4/web/catalog/search.php</a>	NA	<a href="http://195.155.142.4/web/catalog/search.php">http://195.155.142.4/web/catalog/search.php</a>	Local In house Software
<b>Classification System</b>	Dewey Decimal Classification-DDC	Dewey Decimal Classification-DDC	Library of Congress System	Dewey Decimal Classification-DDC	Dewey Decimal Classification-DDC
<b>Librarian</b>	6 persons including coordinator	2 persons (primary and secondary) no coordinator	3 persons including coordinator	3 persons (primary and secondary) no coordinator	2 persons (primary and secondary) no coordinator
<b>Information Center</b>	Well developed	Less developed	Less developed	Less developed	Less developed
<b>E- Services</b>	More descriptive	Less descriptive	Less descriptive	Less descriptive	Less descriptive
<b>Schools' Management</b>	Self ruled/Ministry of education	Self ruled/Ministry of Education	Self ruled/Ministry of Education	Self ruled/Ministry of Education	Self ruled/Ministry of Education
<b>International Cooperation</b>	Erasmus project	NA	NA	ECO-SCHOOLS PROJECT	ECO-SCHOOLS PROJECT/Erasmus project
<b>Finance</b>	Self financed	Self financed	Self financed	Self financed	Self financed
<b>Webpage Design tool</b>	HTML/PHP	ASP/Micro soft	PHP	ASP/Micro soft	ASP/Micro soft
<b>International Online Journal</b>	EBESCOHOST	NA	NA	NA	NA
<b>IFLA/UNESCO</b>	Adheres the most	Adhere less	Adhere less	Adhere less	Adhere less
<b>Library usage</b>	Serves schools community only	Serve schools community only	Parents and school community are served	Serve the schools community only	Parents and school community are served

## 7. Findings

Comparison of the five schools reveals the following facts. Excluding TED College, the rest of the schools have not developed the right strategy of utilizing web technologies in their websites. Websites are descriptive; they only advertise the school with no specific direction. They have not integrated the e-Learning technology in their curriculums fully or partially. TED College has been updating its website vigorously. Three of out the five schools did not have a website at all. However, the libraries operate properly, but it is not clear how effective the libraries are in implementing information resources. All of the schools use some kind of library automation system such as Open Source or proprietary. For example, TED uses OpenBiblio and others use system such as Milas. Librarians do not participate in computer literacy as much they should. Also, we found out that almost all students have access to the computer and internet, so they are computer literate and self-trained. Since the schools are private they do not follow the MEB by implementing the ministry's requests systematically. Therefore, each school sets its own standards. However, it is difficult to measure of each school's strength and weakness regarding information services. According to the schools' librarians, finance plays an important role in implementing the information resources effectively. As a result, schools with a higher budget are more successful of utilizing information services (technologies) effectively.

## 8. Recommendations

Technology changes so rapidly in all aspects of life; a school's library is a part of society where we see technology used every day. In that respect, librarians should utilize new technology for their purposes. Recommendations can be made for strengthening the usage of information technology (resources) in schools as follows:

- A management policy
- Encourage the use of efficient or right technology
- Allocate capital for implementing technology
- Adopting a common library automation system
- A better trained librarianship
- Hiring more personnel in the library
- Training library personnel on new information technology
- Attending workshops regarding web 2.0 and its usage
- Encouraging teachers to use E-learning technology in their courses
- Less technology (services) oriented schools should follow and adapt to the model provided by more technology (services) oriented schools

## 9. Conclusion

Libraries are an important part of each society. Librarians provide access to information for users, students, teachers or any citizen in the society. Knowledge is power, so everyone likes to have access to information anywhere and anytime. Information resources and technology are becoming an integral part of modern and democratic society. The librarians' responsibilities are to disseminate knowledge through information technology. Therefore, librarians ought to keep up with contemporary changes that occur so rapidly in order to satisfy the users' need.

Currently, e-learning technology is the "hot topic" and will be in years to come. With the advancement of hardware and software (Open Source) more libraries will incorporate information technology in their daily routines. The above comparative study is an indicator of the usage of technology in primary and high schools. However, it is difficult to map an overall picture of information resources in schools. This study may be a stepping stone to a bigger study that should sample all schools, private, public and vocational, in the future. Then we will be able to gain a better picture of the schools' libraries and implementing information resources (technologies) in Turkey.

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